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Application No. 09/963,340
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IN THE CLAIMS

Please amend the claims as follows. This listing of claims replaces all prior versions.

1. (Currently Amended) An isolated DNA molecule comprising a sequence selected from the group consisting of:
(a) SEQ ID NO:1;
(b) DNA sequences which encode an enzyme having SEQ ID NO:2;
(c) DNA sequences which nucleic acid that hybridizes to isolated DNA of (a) or (b) above and which encode a quinolate phosphoribosyl transferase enzyme; and
(d) DNA sequences which differ from the DNA of (a), (b) or (c) above due to the degeneracy of the genetic code, SEQ ID NO:1 or a complement thereof under a wash stringency of 0.3M NaCl, 0.03M sodium citrate, and 0.1% SDS at 60° to 70°C, wherein said nucleic acid is greater than or equal to 30 consecutive nucleotides of SEQ ID NO:1.
2. (Currently Amended) A DNA nucleic acid construct comprising an expression cassette, which construct comprises, in the 5' to 3' direction, a promoter operable in a plant cell and a DNA nucleic acid segment according to claim 1 positioned downstream from said promoter and operatively associated therewith.
3. (Currently Amended) A DNA nucleic acid construct comprising an expression cassette, which construct comprises, in the 5' to 3' direction, a plant promoter and a DNA nucleic acid segment according to claim 1 positioned downstream from said promoter and operatively associated therewith, said DNA nucleic acid segment in antisense orientation.
- 4-11. (Canceled).
12. (Currently Amended) A plant cell ~~containing~~ comprising a DNA nucleic acid construct according to claim 2, ~~3, 4 or 5~~ or 3.
13. (Original) A transgenic tobacco plant comprising the plant cell of claim 12.
- 14-15. (Canceled)
16. (Currently Amended) A method of making a transgenic tobacco plant cell having with reduced quinolate phosphoribosyl transferase (QPRase) expression, said method comprising:
providing a tobacco plant cell; of a type known to express quinolate phosphoribosyl transferase;
providing an exogenous DNA construct, ~~which construct comprises, in the 5' to 3' direction, a promoter operable in a plant cell and DNA comprising a portion of a sequence encoding quinolate phosphoribosyl transferase mRNA, said DNA operably associated with said promoter~~ the nucleic acid construct of Claim 2; and
~~transforming said plant cell with said DNA construct to transferring said nucleic acid construct to~~ said tobacco plant cell so as to produce a transformed tobacco plant cells, said plant cell having with
reduced expression of QPRase as compared to an untransformed tobacco plant cell.
17. (Currently Amended) The method of claim 16, wherein said DNA nucleic acid ~~comprising a portion of a sequence encoding quinolate phosphoribosyl transferase mRNA~~ is in antisense

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orientation.

18. (Currently Amended) The method of claim 16, wherein said ~~DNA nucleic acid comprising a portion of a sequence encoding quinolate phosphoribosyl transferase mRNA~~ is in sense orientation.

19. (Currently Amended) The method of claim 16, wherein said tobacco plant cell is *Nicotiana tabacum* a Burley variety.

20-25. (Canceled).

26. (Currently Amended) A method of producing transgenic tobacco seeds, comprising collecting seed from a the transgenic tobacco plant produced by the method of claim 32 13 or 31 or a progeny thereof.

27-30. (Canceled).

31. (Currently Amended) A reduced nicotine transgenic tobacco plant of the species *Nicotiana* having reduced quinolate phosphoribosyl transferase (QPRase) expression relative to a non-transformed control plant, said transgenic plant comprising transgenic plant cells containing comprising:
an exogenous DNA nucleic acid construct comprising, in the 5' to 3' direction, a promoter operable in said plant cell and DNA a nucleic acid comprising a segment of a DNA sequence that encodes a plant quinolate phosphoribosyl transferase mRNA, said DNA that hybridizes to SEQ ID NO:1 under a wash stringency of 0.3M NaCl, 0.03M sodium citrate, and 0.1% SDS at 60° to 70°C and operably associated with said promoter;
wherein said tobacco plant exhibiting reduced QPRase expression has a reduced amount of nicotine as compared to a non-transformed control plant.

32. (Currently Amended) The method of claim 31, wherein said ~~segment of DNA nucleic acid construct comprising~~ comprises a segment of a DNA nucleic acid sequence encoding quinolate phosphoribosyl transferase mRNA that hybridizes to SEQ ID NO:1 and said nucleic acid is in antisense orientation.

33. (Currently Amended) The method of claim 31, wherein said ~~segment of DNA comprising nucleic acid construct~~ comprises a segment of a DNA nucleic acid sequence encoding quinolate phosphoribosyl transferase mRNA that hybridizes to SEQ ID NO:1 and said nucleic acid is in sense orientation.

34-42. (Canceled).

43. (Currently Amended) A ~~transgenic plant of the species *Nicotiana* having reduced quinolate phosphoribosyl transferase (QPRase) expression relative to a non-transformed control plant, wherein said transgenic plant is a progeny of a plant according to claim 13 or 31.~~

44. (Currently Amended) ~~Seeds of a transgenic A seed of a tobacco plant of the species *Nicotiana* having reduced quinolate phosphoribosyl transferase (QPRase) expression relative to a non-transformed control plant, wherein said transgenic plant is a plant according to claim 13, 31 or 43, or a progeny thereof.~~

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